

## DIRT CHEAP DOWN-SHOOTING STAND FOR WAYWARD ANIMATORS

by Gina Kamentsky



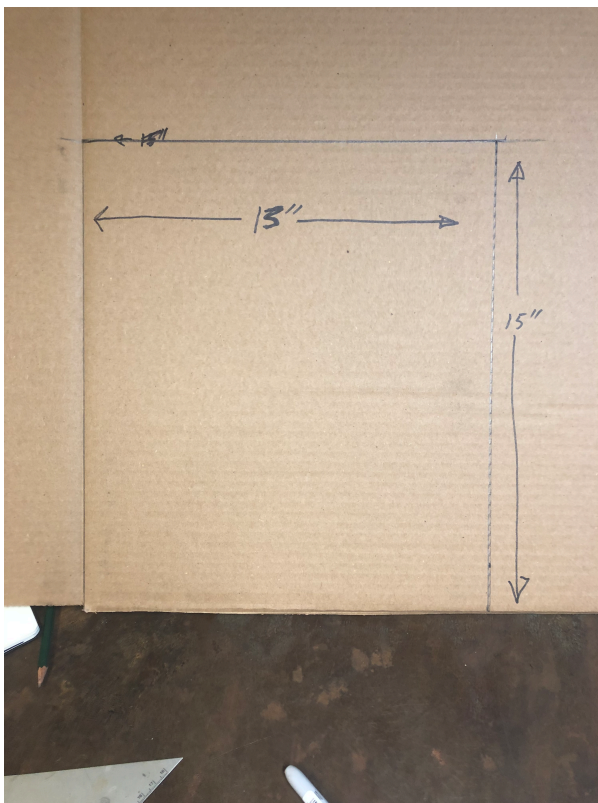
Making an animation stand from a Corrugated Cardboard moving box.

This is a simple design for an animation stand which will work with a smart phone and with some modifications an SLR. For construction you'll need the following:

- Corrugated Cardboard. For my example I started with a 22 x 22 x 21.5 inch Heavy Duty Moving Box from Home Depot. The extra heavy corrugate is double thick and makes for a nice sturdy stand. Dimensions can be modified slightly for other cardboard weights.
- A medium Rubber Band
- Pencil
- Ruler
- Triangle or T Square
- Hot Glue Gun
- Packing Tape
- Matt Knife or X-acto

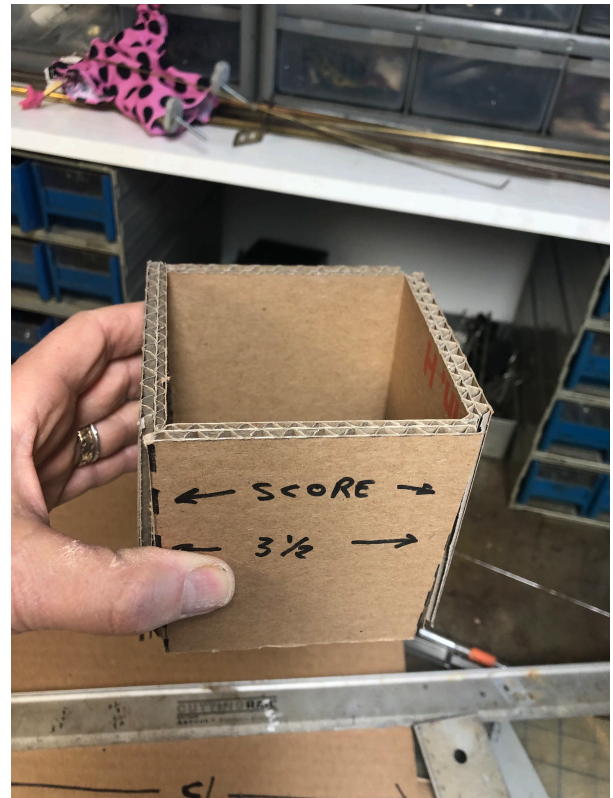
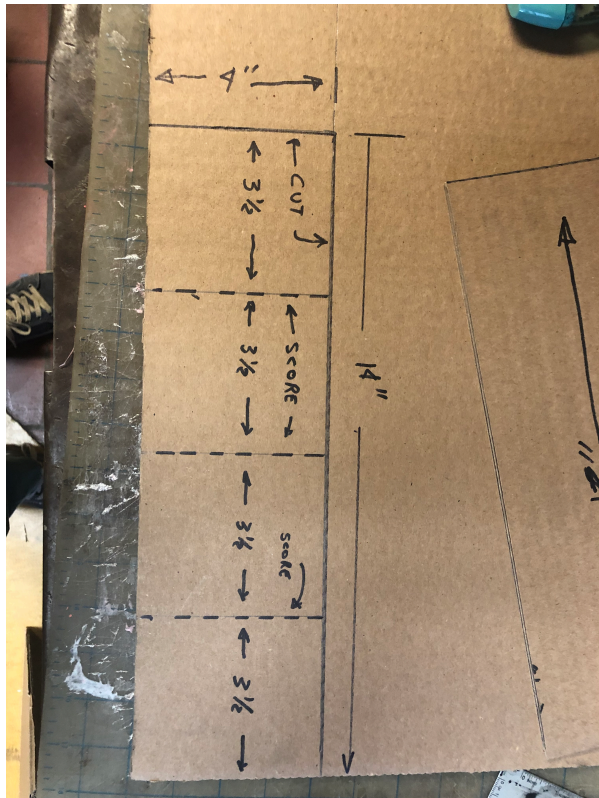


1. Start by measuring the base. 15" x 13" and cutting out a rectangular piece of cardboard. The grain can go either way. This will form the base.

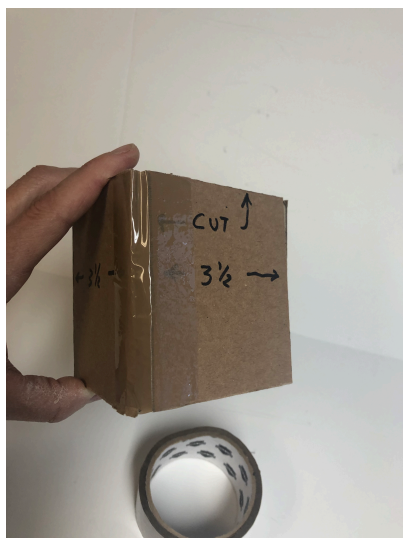




2. Cut and score a piece of cardboard for the slider, this is the part that allows the camera holder to go up and down. Measure a long rectangle 4" high with the grain going in that direction ( the structural tubes that make the Corrugated part) and 14" wide. Divide this into 4 boxes, each 3.5" wide. The solid line in the photo is where you should cut, the dashed lines are where you should score. These will be folds. In the photo on the right I've folded this into an open box shape .

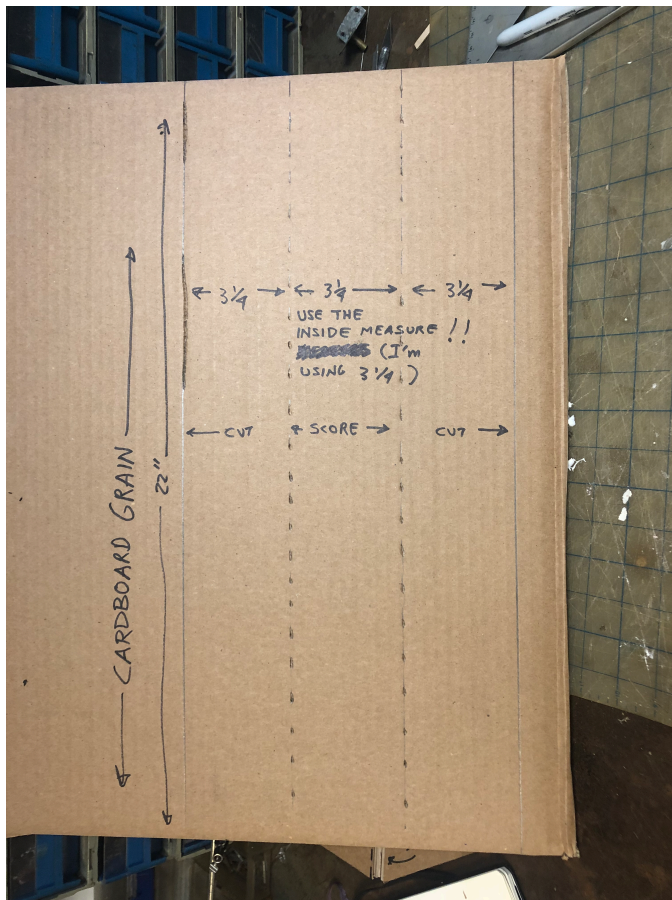


3. Tape the ends together using packing tape. Run a strip of tape along the inside too.



4. Measure between the INSIDE edges of your slider. Because cardboard comes in different thicknesses your measurement might differ a bit from the one I worked out. My measurement worked out to 3.25 inches.

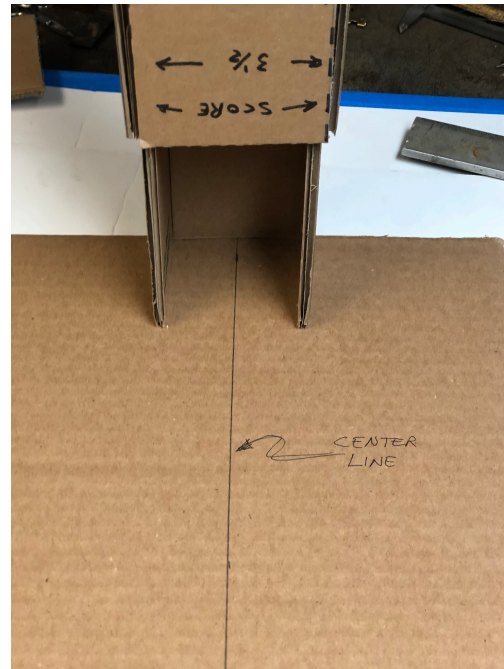
5. Mark out cut and score dimensions on another piece of your cardboard for the support tube. VERY IMPORTANT, the grain should go the long way. This is the vertical part of the stand that will support the camera weight and we want to take advantage of the structure of the cardboard to support things. I used 22" for the length of the tube. You can make the length a bit less but keep it above 15".



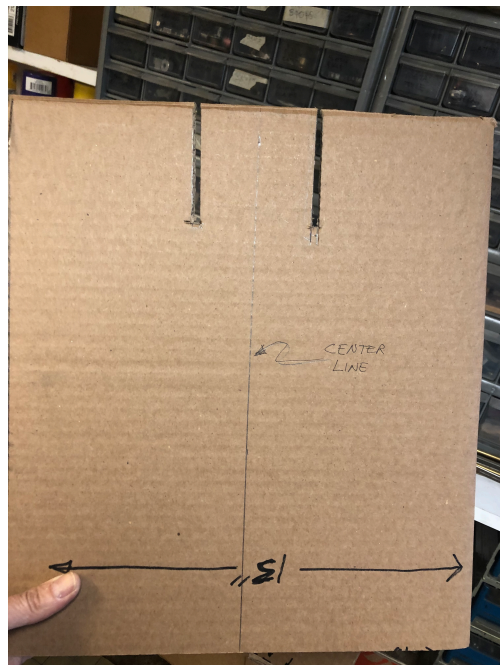
Multiply your measurement from step four by 3. In my case this is 9.75 inches, this is your width. Measure 2 score lines evenly spaced so you have 3 columns.



6. Fold along the scores so you have a three sided tube shape and slip the sleeve onto it. If you measured correctly this should be able to slide along the tube with a bit of friction to stay in place.



7. Draw a center line on the base and use this to center the vertical tube. Draw around the base of the tube to mark the slots where the tube locks into the base. In the photo on the right I've cut out the slots.

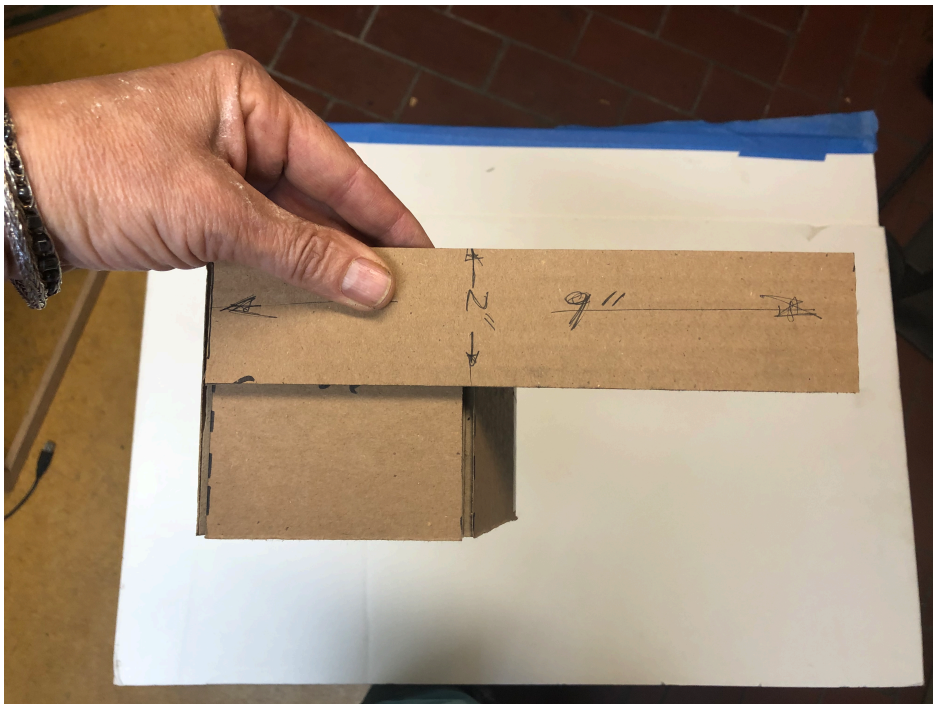




8. Insert the tube into the guide slots. Use your triangle to check that everything is square. This is an important step as you want the stand to be aligned. Glue the tube into place with a bead of hot glue all the way around. Check one more time that it's aligned before the glue sets ( you might want to hold it in place for a minute ).



9. Remove the slider and cut two pieces of cardboard 2" by 9" long with the grain going the long way. These will be part of your camera support.





10. Glue these in place, one on each side and slip the sleeve back onto the tube.



11. In the following steps you'll be making the camera mount. Some of the your measurements will be determined by the design of your camera. I'm using a small Motorola camera as an example ( I'm using my iPhone to shoot this and the Motorola is from a few years back). Measure out a piece of cardboard to fit flush between the two pieces for the support. Do Not glue it in place yet!



12. Remove the cardboard and place your phone perpendicular . I'm setting the stand up for landscape shooting and the lens is in the center. Position the camera so there'e about 1/2 from the front of the cardboard and locate your lens. Mark this and cut a 1" square hole . My iPhone has the lens on the left. In this case the opening would be more towards the front of the cardboard. Your results will differ depending on the camera!





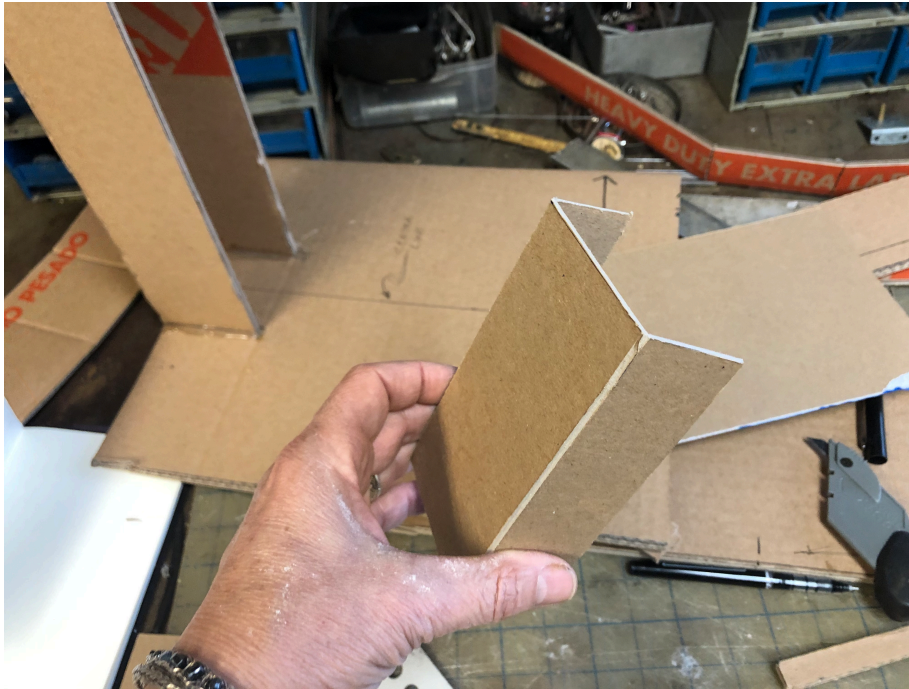
13. Glue the cardboard in place so it is flush with the sides on top. Make sure to glue the underside where everything joins and keep the top free of glue.



14. The final step is to make the camera tray. I'm using a lighter chipboard from the back of a sketch pad for this. I'm using chipboard as it wraps a bit easier around the camera. Measure the width of your phone and mark two score lines.



15. The length of your tray should be a bit longer than your camera, about 1/2" measure 1" on each side of the score lines and cut out to form a shape similar to the photo below.

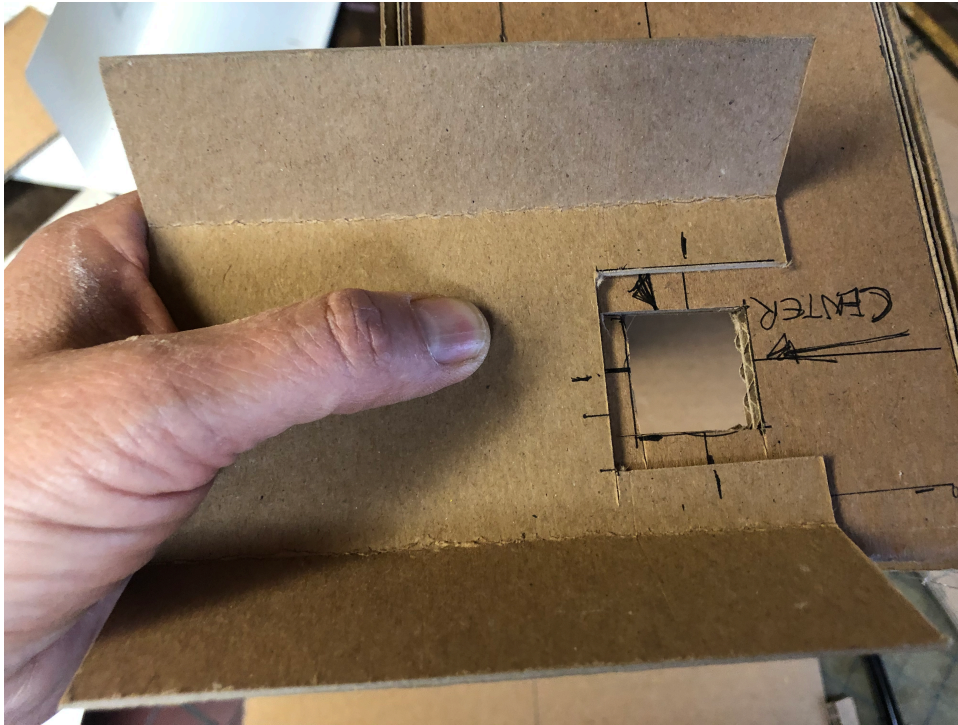


16. Locate your lens and mark the point where it aligns with the tray.





17. Cut out a notch in your tray about 1.25 inch wide. This will allow the lens to be placed properly.



18. Glue the tray in place so the lens openings match up and secure your camera using a rubber band. The sides should compress a bit to hold everything in place.



Here's the stand all ready to go. In the photo below I have it set up with a light box for shooting silhouette puppets.



## Stop Motion Apps

There are a number of great apps for Android and iPhones for stop motion which will be a good fit for animation work. My fave is O-Snap, I used it this summer to make a complete film and it works beautifully.

<http://fingerlab.net/portfolio/imotion>

<https://www.cateater.com/>

<http://www.osnapphotoapp.com/>

One other important tech item you will need is a shutter release to shoot frames. I find that using the button on the camera tends to shake the camera too much and change the position. My solution is to use the volume switch on blue tooth headphones. You can also use the volume key on a blue tooth keyboard paired with your phone!

<https://www.howtogeek.com/215086/ask-htg-whats-the-easiest-way-to-add-a-remote-camera-shutter-to-my-smartphone/>

## Down Lighting

I find that inexpensive desk lamps are a good solution for simple down lighting. Buy two and position them at a 45 degree angle onto the base. Here's an LED one available online.



Have fun with making your stand and feel free to send me your thoughts, mods, improvements and lets make some animation!

all the best

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